IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application	:	Thomas Zickell
Serial No.	:	09/898,707
Filed	:	July 3, 2001
For	:	Fire-Resistant, Self-Adhesive Rolled Roofing Membrane and Method of Making Same
Attorney's Docket	:	NEI-010XX
Examiner	:	W. Aughenbaugh
Group Art Unit	:	1794

DECLARATION OF Thomas Zickell
UNDER 37 CFR 1.132

Commissioner for Patents
Washington, D.C. 20231

Sir:

I, Thomas Zickell, hereby declare that:

1. I am the inventor of "Fire-Resistant, Self-Adhesive Rolled Roofing Membrane and Method of Making Same" claimed in the above-identified United States patent application.

2. I have read and understood U.S. Patent No. 4,079,158 issued to Kennepohl et al., U.S. Patent No. 5,079,088 issued to McGroarty et al., and U.S. Patent No. 5,096,759 issued to Simpson et al.

3. I have over 40 years of experience in the roofing industry.

4. In 1980, I founded and am currently CEO of NEI. NEI manufactures self-adhesive roofing products. The company's

annual sales currently are calculated at 45 million.

5. Prior to founding NEI, I worked for Georgia Pacific and managed Georgia Pacific's entire U.S. roofing manufacturing operations. Prior to being employed at Georgia Pacific, I was regional manager of four roofing plants and promoted to Vice President of Manufacturing for fourteen roofing plants, five paper plants, a fiberglass mat plant and a fiberglass plant at GAF Materials Corporation. Before that I was the Plant Manager for an Owens Corning roofing products manufacturing plant.

6. I hold twelve patents in the asphalt related products and processes technologies.

McGroarty (U.S. PAT. NO. 5,079,088):

7. McGroarty is not analogous art for the purpose of analyzing the obviousness of the subject matter at issue. The technology disclosed in McGroarty relates to a bentonite clay waterproofing system which functions differently from an asphalt shingle system. In addition, the need for the edge portion as disclosed in McGroarty is not present in asphalt shingle technology. One skilled in the art of asphalt shingle roofing systems would not look to the bentonite clay

waterproofing system of McGroarty.

8. The water barrier system disclosed by McGroarty contains several key differences, namely:

a. The bentonite clay system of McGroarty would be installed on a flat roof whereas a shingle system requires a sloped roof. The flat roof system generally requires a waterproof membrane running the continuous span of the roof. See column 2, lines 55-67 of McGroarty. Whereas the shingle system does not provide a continuous waterproof membrane but relies on the slope of the roof to drive water downward in the same direction as the shingles overlap. The directional flow of water prevents liquid from penetrating up and between the shingles.

b. The bentonite system necessitates that the bentonite clay, which absorbs moisture, be under a waterproof membrane. The bentonite clay system relies on a continuous waterproof barrier prior to the bentonite clay layer to prevent exposure to moisture. In the accidental event that the waterproof membrane is

punctured the bentonite clay layer provides additional protection by expanding to fill the point of puncture and prevent further leaking. See column 2, lines 62-67 of McGroarty. The bentonite clay accomplishes this by absorbing liquid penetrating the punctured waterproof membrane and expanding to several times its original dry volume. The bentonite clay layer could not function as a waterproofing system without the waterproof membrane as all moisture contacting the bentonite clay layer surface would be absorbed preventing further expansion. The edge portion of waterproof membrane is necessary to allow for complete sealing between panels of the continuous waterproof membrane; unlike asphalt shingles that overlap and do not provide a complete seal between shingles. Therefore, it would not be obvious to apply the teachings of bentonite clay system to asphalt shingles.

c. McGroarty is directed to waterproofing panels of bentonite clay. McGroarty utilizes several layers of bentonite to provide panels that are installed next to each other. See column 5, lines 54-60 of McGroarty.

The layers of bentonite clay are required to provide enough material to absorb leaks and expand. A system using a relatively thin layer would not provide enough bentonite clay material to expand and fill the puncture. Thus a relatively thick layer is required. This relatively thick layer, if overlapped between panels in a shingle style fashion, would produce ridges obstructing the flow of water and cause pooling of water on each panel. The edge portion is necessary to allow for sealing between panels without overlapping the thicker bentonite clay layer; unlike asphalt singles that do not have a thick bentonite clay layer, and by design completely overlap an adjacent shingle. Therefore, it would not be obvious to apply the teachings of bentonite clay system to asphalt shingles. In addition, one skilled in the art of asphalt shingle roofing systems would not look to the teachings of a bentonite clay waterproofing system.

d. The bentonite clay system of McGroarty requires the additional sealed membrane to provide a waterproof seal on top of the layer of bentonite clay. See column 2,

lines 55-67 of McGroarty. Therefore the sealed membrane must overlap to make contact with the membrane of adjacent panels; thus providing a unified membrane instead of an overlapping, sandwich structure in asphalt shingle systems. Asphalt shingles by design completely overlap an adjacent shingle. The bentonite clay system of McGroarty by design cannot completely overlap. The exposed edge of the bentonite clay layer of the system would absorb water at each overlap and prevent a complete seal. Therefore it would not be obvious to apply the teachings of the bentonite clay system to asphalt shingles. In addition, one skilled in the art of asphalt shingle roofing systems would not look to the teachings of a bentonite clay waterproofing system.

9. Accordingly, McGroarty does not disclose or suggest all the elements recited in independent claims 45, 55, and 62. Moreover, McGroarty is not analogous art or modifiable to include all the elements recited in independent claims 45, 55, and 62.

CONCLUSION

10. McGroarty is not analogous art for the purpose of analyzing the obviousness of the subject matter at issue.

11. One skilled in the art at the time of the invention would not look to the system of McGroarty to address issues specific to McGroarty waterproofing system and not faced by an asphalt roofing shingle system. The cited teachings of McGroarty are specific to the panelized bentonite clay system of McGroarty.

12. All statements made herein of my own knowledge are true, and all statements made on information and beliefs are believed to be true. The foregoing statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that my willful false statements or the like, may jeopardize the validity of the above-identified patent application or any patent issued thereon.

7/28/08
Date

Thomas Zickell